

IN THE CLAIMS:

Please amend the claims as follows.

Claim 1 (Currently Amended): An energy ray detecting element, comprising:

a semiconductor substrate having an energy ray sensitive region that generates charges in response to the incidence of energy rays;

an output section accumulating the charges generated in said energy ray sensitive region, and outputting a current signal or a voltage signal corresponding to the accumulated charge amount;

a plurality of electrodes, each positioned so as to cover a part of said energy ray sensitive region and transferring the charges generated in said energy ray sensitive region to said output section; and

a voltage dividing circuit having terminals directly and electrically connected to each of said electrodes and coincidentally providing predetermined potentials to said electrodes through said terminals so as to form a single potential well with respect to said energy ray region, said voltage dividing circuit including a plurality of voltage dividing resistors serially connected to each other, each of said voltage dividing resistors providing a corresponding DC output potential to the associated one of said electrodes by dividing a DC output voltage from a DC power supply.

Claim 2 (Currently Amended): An energy ray detecting element, comprising:

a semiconductor substrate having an energy ray sensitive region that generates charges in response to the incidence of energy rays;

an output section accumulating the charges generated in said energy ray sensitive region, and outputting a current signal or a voltage signal corresponding to the accumulated charge amount;

a plurality of electrodes, each positioned so as to cover a part of said energy ray sensitive region and transferring the charges generated in said energy ray sensitive region to said output section; and

a voltage dividing circuit including a plurality of voltage dividing resistors that are electrically connected to said electrodes respectively and are serially connected to each other, and terminals directly and electrically connected to said electrodes, said voltage dividing circuit coincidentally providing predetermined potentials to said electrodes ~~respectively such that the~~ potential wells, which are respectively formed through said terminals so as to form a single potential well with respect to said energy ray region, bottom parts of said single potential well formed, which are positioned below said electrodes, become becoming gradually deeper in a charge transferring direction.

Claim 3 (Previously Presented): An energy ray detecting element according to claim 1, wherein said output section includes:

an impurity region accumulating the charges generated in said energy ray sensitive region; and

a gate inhibiting or allowing the movement of charges into said impurity region in accordance with a signal input.

Claim 4 (Previously Presented): An energy ray detecting element according to claim 2,
wherein said output section includes:

an impurity region accumulating the charges generate in said energy ray sensitive region;
and

a gate inhibiting or allowing the movement of charges into said impurity region in
accordance with a signal input.